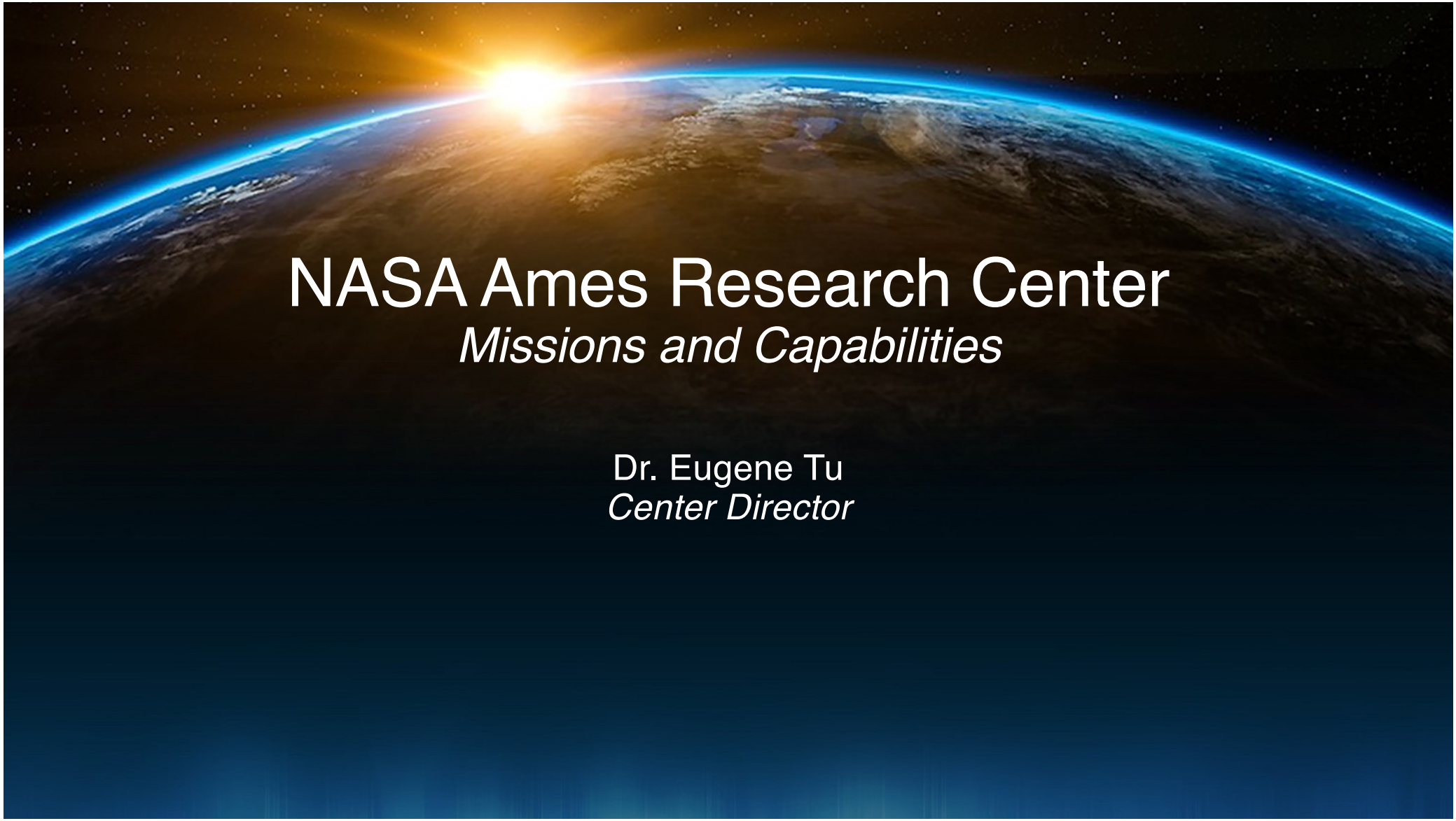

NASA
SILICON
VALLEY
AMES RESEARCH CENTER



NASA Ames Research Center

Missions and Capabilities

Dr. Eugene Tu
Center Director

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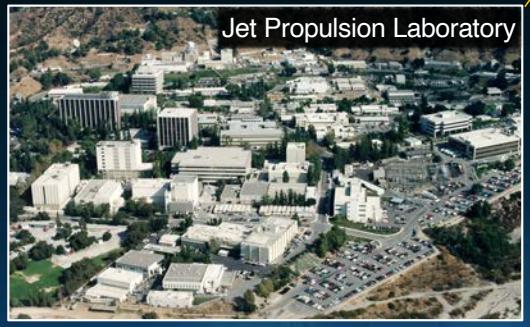
NASA Centers



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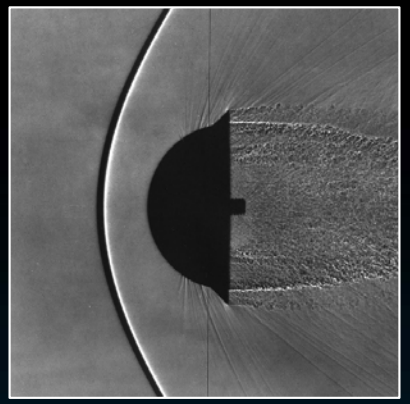
Ames Aeronautical Laboratory

The NACA's Second Laboratory



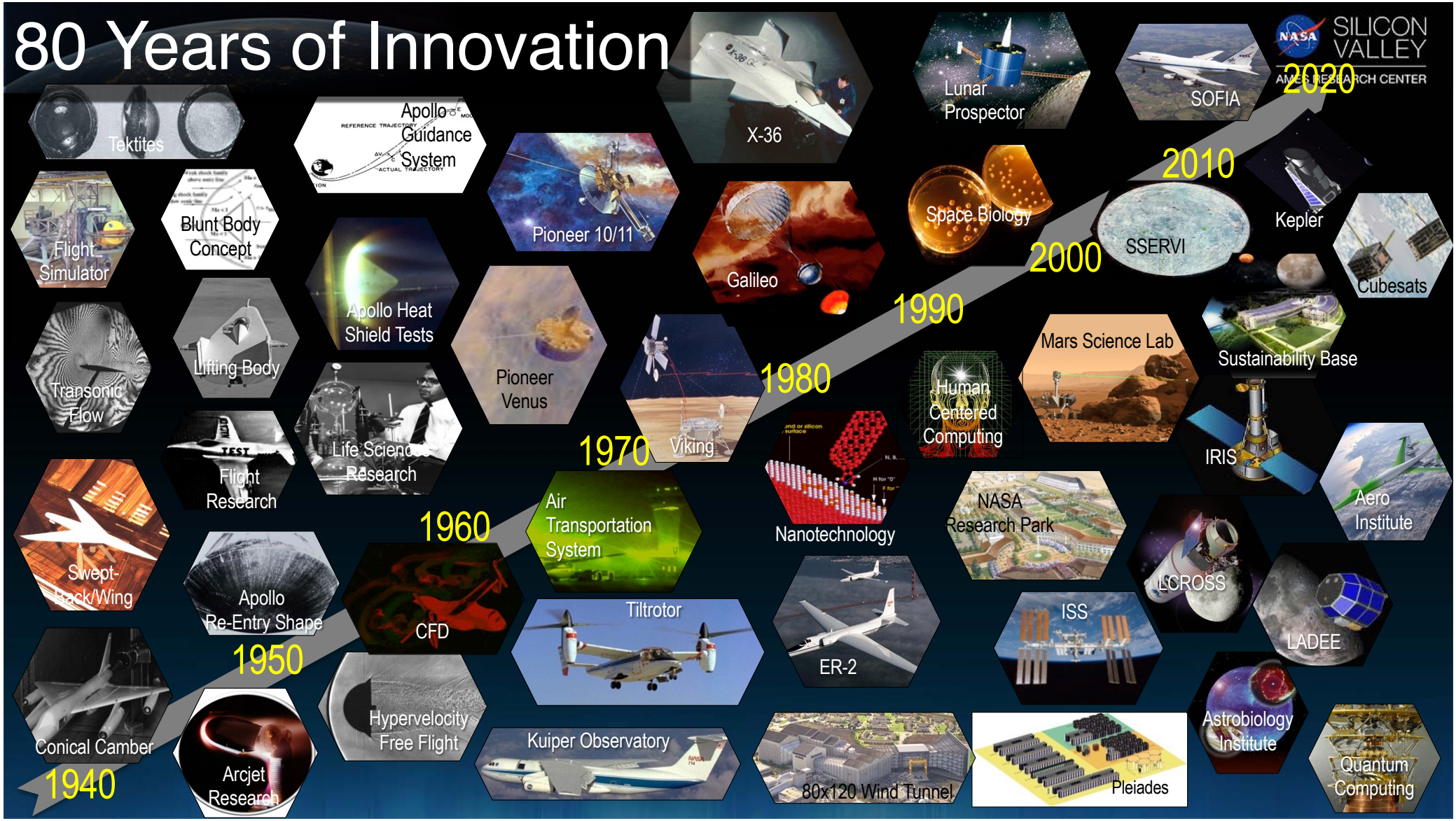
NACA Est. 1915
- *Langley – 1917*
- *Ames – 1939*
  - *Research Hangar*
  - *7x10-foot Tunnels*
  - *40x80-foot Full Scale*
  - *16-foot High Speed*
  - *12-foot Pressure Tunnel*

1940s: Quick & Practical
- *De-icing*
- *Duct Rumble*
- *Aileron Flutter*
- *Buffeting*
- *Dive Control*

The Supersonic Age
- *Swept Wings*
- *Supersonic Tunnels*
- *Supersonic Area Rule*
- *Conical Camber*
- *Hypervelocity Research*

1950s
- *Simulation*
- *Unitary Tunnel*
- *Blunt Body Concept*

NACA Becomes NASA
- *Reentry Studies*
- *Arc Jet Development*
- *Spaceflight Projects*


80 Years of Innovation
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2020
2010
2000
1990
1980
1970
1960
1950
1940
Tektites
Apollo Guidance System
X-36
Lunar Prospector
SOFIA
Flight Simulator
Blunt Body Concept
Pioneer 10/11
Galileo
Space Biology
SSERVI
Kepler
Cubesats
Apollo Heat Shield Tests
Lifting Body
Transonic Flow
Pioneer Venus
Viking
Mars Science Lab
Sustainability Base
Human Centered Computing
Life Sciences Research
Flight Research
IRIS
Aero Institute
Swept-Back/Wing
Air Transportation System
Nanotechnology
NASA Research Park
LCROSS
Apollo Re-Entry Shape
CFD
Tiltrotor
ER-2
ISS
LADEE
Conical Camber
Hypervelocity Free Flight
Kuiper Observatory
Arcjet Research
80x120 Wind Tunnel
Pleiades
Astrobiology Institute
Quantum Computing

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Ames Today

Occupants

- *~1,200 civil servants*
- *~1,900 on-site contractors*
- *~2,500 NRP workforce*
- *~700 summer students in 2019*

FY20 Budget

- *~$1,011M (est.) & includes reimbursable/EUL*

Real Property

- *~1,900 acres*
- *400 acres security perimeter*
- *5M building ft^2*
- *Airfield with ~9,000 and 8,000 ft. runways*

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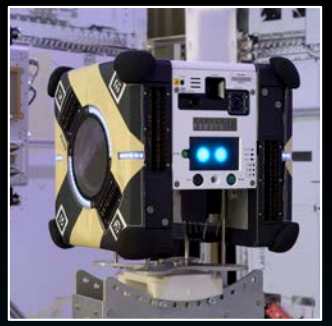
Core Competencies

Air Traffic Management

Entry Systems

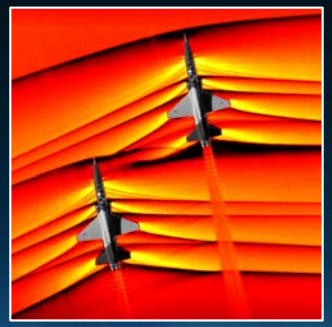
Advanced Computing & IT Systems

Intelligent & Adaptive Systems



Cost-Effective Space Missions

Aerosciences



Astrobiology & Life Science

Space & Earth Sciences

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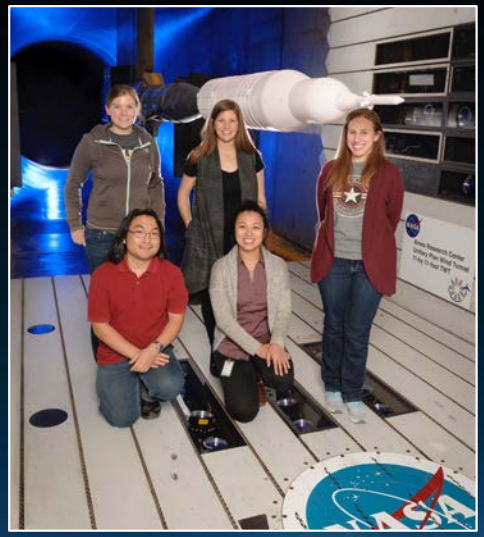
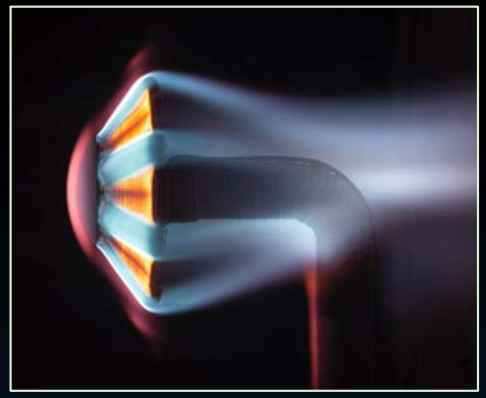
Major Research Facilities

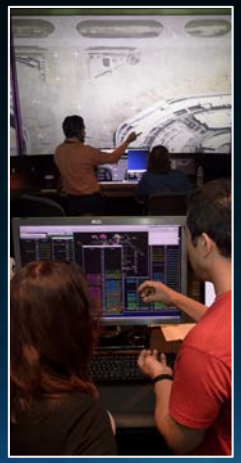
Wind Tunnels



Arc Jet Complex



Simulators



Supercomputing

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Evaluating Sustainable Aviation Aircraft Configurations (Unitary Plan Wind Tunnel Facility)

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Large Scale Simulations of Sustainable Aviation Operations (Future Flight Central)

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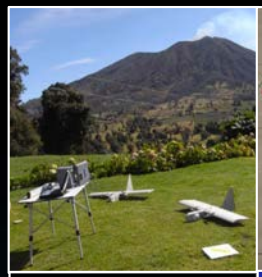
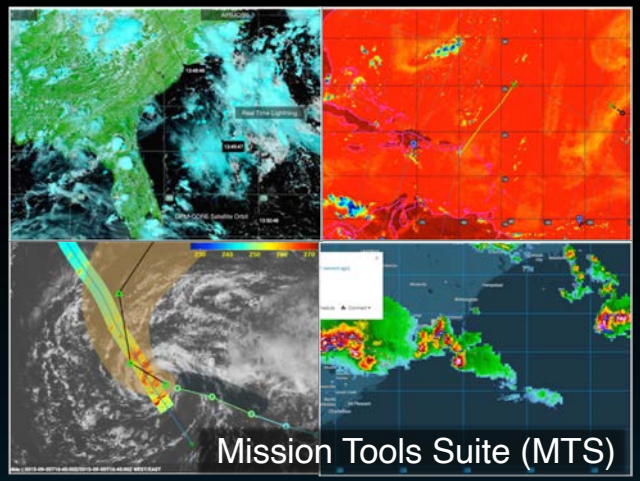
Airborne Earth Science Helps Us Understand and Mitigate Climate Change Effects/Impacts



New unmanned aircraft available to science from SUAS to HALE

MODIS/ASTER Airborne Simulator (MASTER) sensor supports "Surface Biology and Geology (SBG)" and wildfires



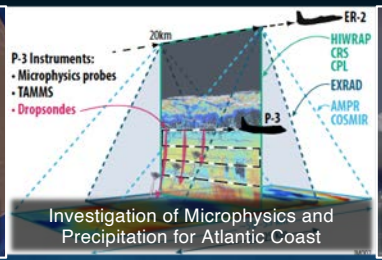
Mission Tools Suite (MTS)

Next-Gen onboard hardware: computing, instruments, and SATCOM

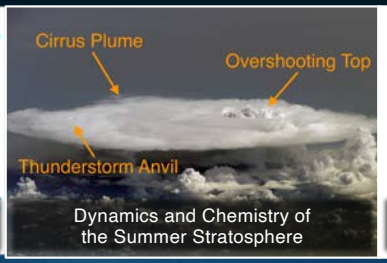
ESPO NASA

Earth Science Project Office

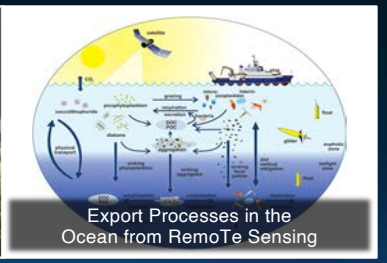
Asian Summer Monsoon Chemical & CLimate Impact Project



Investigation of Microphysics and Precipitation for Atlantic Coast



Dynamics and Chemistry of the Summer Stratosphere



Export Processes in the Ocean from RemoTe Sensing

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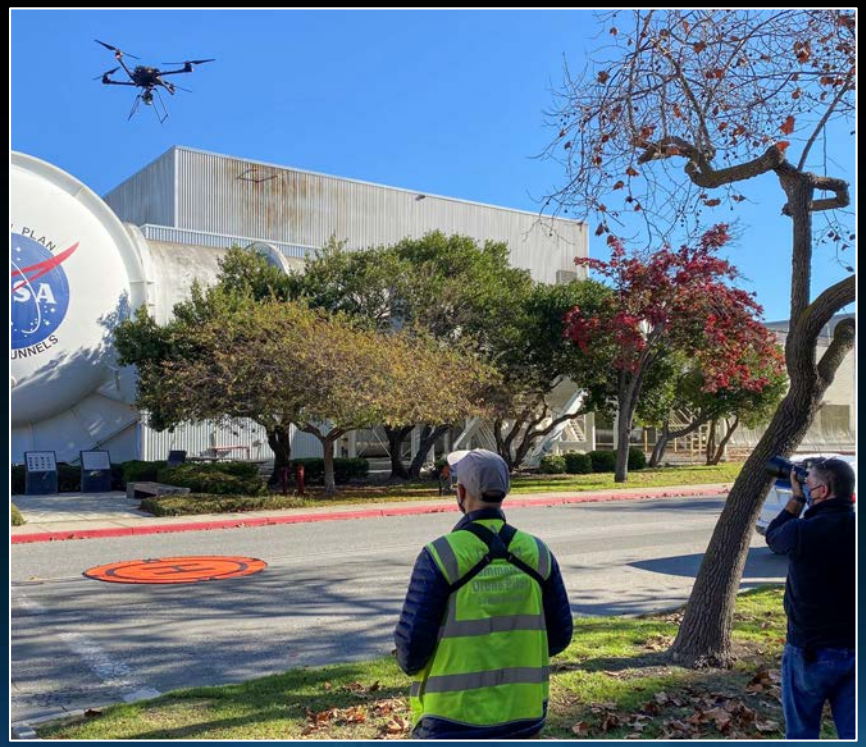
Research For Wildfire And Disaster Support (Capabilities In The Field)

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WE'RE WITH YOU WHEN YOU FLY